

alternatively under 35 U.S.C. §103), and claims 5 to 8 and 15 were rejected under 35 U.S.C. § 103.

Claims 1, 3, 5, 6, 9 to 11, 13 to 15 and 17 have been amended. Claims 2, 4, 18 and 19 have been canceled. New claims 20 and 21 have been added which depend from claim 1. Withdrawal of the rejection is respectfully requested based on the following comments.

Interview Summary

A telephone interview took place between Examiner Dexter and Mr. Gehris on February 13, 2003. Claims 1 and 4 were discussed. With respect to claim 1, it was discussed that the limitation of claim 4 with an anvil cylinder to provide the structure for a nip would obviate the 35 U.S.C. 112 rejection. Mr. Gehris noted that the second cutting device of Boston does not show nipping and nipping surfaces upstream and downstream of the cutting surfaces, but no agreement was reached. The first cutting device of the Boston reference then was discussed, and Mr. Gehris and Mr. Dexter discussed the nip rings 135 of the first cutting device of Boston, which are not upstream and downstream of the cutting surfaces of the first cutting device of Boston. Mr. Dexter stated that if a limitation that the first cutting device has nipping surfaces extending upstream and downstream of the cutting surfaces, that this limitation would appear to define over Boston. Mr. Dexter noted that this would likely raise a new issue.

Applicant thanks Mr. Dexter for his time and courtesy extended during the interview.

Rejection under 35 U.S.C. § 112

Claims 1, 3 to 9, 15 and 18 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite.

Claim 1 has been amended to positively recite a cutting and anvil cylinder for each of the two cutting and nipping devices. It is respectfully submitted that claim 1 is now definite. Claim 18 has been canceled without prejudice.

Withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, is respectfully requested.

Rejection under 35 U.S.C. § 102(b)/103

Claims 1, 3, 4, 9 and 18 were rejected under 35 U.S.C. § 102(b) or 103 as being anticipated or unpatentable by Boston. Claims 4 and 18 have been canceled.

Boston discloses a two-stage continuous web cutting system and method where a web 100 is cut partially by a first pair of cylinders 160, 162, and then is fully cut by a second pair of cylinders 164, 166. Web 100 is nipped at the first pair of cylinders 160, 162 not by the cylinders, but by a pair of additional axially located nipping rings 135 (See Fig. 2, and col. 4, line 32 of Boston).

Claim 1 has been amended to recite “a first cutting and nipping device for partially cutting a web so as to form first cuts in the web, the first cutting and nipping device having a first cutting cylinder with axially-extending first cutting surfaces for forming first cuts in the web and a first anvil cylinder for interacting with the first cutting surfaces, the first cutting cylinder having a first nipping surface extending upstream and downstream from the at least one of the first cutting surfaces, the first nipping surface interacting with the first anvil cylinder to provide a first nip for the web.”

The first cutting cylinder of Boston does not having a nipping surface extending upstream and downstream, from the cutting surfaces. As shown clearly in Fig. 2 of Boston, the cylinder has nip rings 135 which are axially spaced from the cutting surfaces, and thus do not extend upstream and downstream from the cutting surfaces, as now claimed.

Withdrawal of the rejection to claim 1 and its dependent claims 3 and 9 under 35 U.S.C. § 102(b) is respectfully requested.

Rejection under 35 U.S.C. § 103

Claims 5 to 8 and 15 were rejected under 35 U.S.C. § 103. These claims all depend from amended claim 1, and withdrawal of the rejection is requested for the reasons mentioned above.

With further respect to Sturtz, it is noted that the Sturtz merely shows as prior art a cylinder 26 with a urethane coating for reducing friction of glass fiber to be cut. There is no teaching or motivation to use this teaching in a folder, as recited in claim 1. In addition, with respect to the cutting cylinder, Sturtz actually teaches away from using urethane as a nipping surface, as the invention of Sturtz is directed to using the urethane to hold the blades, while a non-urethane flange 54 provides rolling contact between the cylinders. In Sturtz, the urethane does not provide a nipping surface on a cutting cylinder. Withdrawal of the rejection to claims 5 to 8 and 15 is respectfully requested for this reason as well.

Rejoinder of Claims 10 to 14, 16 and 17

Non-elected claims 10 to 14 and 17 are respectfully requested to be allowable as dependent on claim 1, and rejoinder and allowance of these claims is respectfully requested. Method claim 19 has been canceled without prejudice.

CONCLUSION

It is respectfully requested that the application is now in condition for allowance and applicant respectfully requests such action.

Respectfully submitted,
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In re Application of: HEARN
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ADDENDUM SHOWING CHANGES TO CLAIMS

1. (Thrice amended) A folder for a web printing press comprising:
a first cutting and nipping device for partially cutting a web so as to form first cuts in the web, the first cutting and nipping device having a first cutting cylinder with axially-extending first cutting surfaces for forming first cuts in the web and a first anvil cylinder for interacting with the first cutting surfaces, the first cutting cylinder having a first nipping surface extending upstream and downstream from the at least one of the first cutting surfaces, the first nipping surface interacting with the first anvil cylinder to provide [providing] a first nip for the web; and
a second cutting and nipping device downstream of the first cutting and nipping device for cutting the web between the first cuts so as to form signatures, the second cutting and nipping device having a second cutting cylinder [with a circumferentially-extending nipping cylinder surface] and a second anvil cylinder for providing a second nip for the web.
3. (Twice amended) The folder as recited in claim 1 wherein the second cutting cylinder has at least one segmented cutting element with cutting edges spaced apart axially, the second cutting cylinder having a second nipping cylinder surface extending circumferentially with respect to the cutting edges.
5. (Once amended) The folder as recited in claim 1 wherein [the second cutting and nipping device includes an] the first anvil cylinder [having] has a urethane outer coating.
6. (Once amended) The folder as recited in claim 1 wherein the [second cutting and nipping device includes a] first cutting cylinder [having] has a urethane outer coating, the first cutting surfaces extending radially beyond the urethane coating.
9. (Once amended) The folder as recited in claim 1 wherein the second [cutting and nipping device includes a] cutting cylinder [having] has two segmented cutting elements spaced 180 degrees apart.
10. (Once amended) The folder as recited in claim 1 wherein the second [cutting and nipping device includes an] anvil cylinder and [a] the second cutting cylinder are indexable circumferentially with respect to one another.
11. (Once amended) The folder as recited in claim 10 wherein the second anvil cylinder has a

continuous outer layer.

13. (Once amended) The folder as recited in claim 1 wherein [the second cutting and nipping device includes an anvil cylinder and a cutting cylinder,] center distances between the second anvil cylinder and the second cutting cylinder [being] are adjustable.

14. (Once amended) The folder as recited in claim 1 wherein the second [cutting and nipping device includes an anvil cylinder and a cutting cylinder, the] anvil cylinder and the second cutting cylinder [being] are cantileverable.

15. (Once amended) The folder as recited in claim 1 wherein the second [cutting and nipping device includes a] cutting cylinder [having] has a hub and a segmented cutting element bolted to the hub.

17. (Once amended) The folder as recited in claim 1 wherein the [first cutting and nipping device include a first cutting cylinder having nipping elements and having a first segmented cutting element having first cutting surfaces and the second cutting and nipping device includes a] second cutting cylinder [having nipping elements and having] has a second segmented cutting element having second cutting surfaces, the second cutting surfaces partially overlapping axially with respect to the first [cutting surfaces] cuts.